

Work Order ID 120564

120564

Page 1

Wednesday, June 04, 2014 3:08:39 PM

Item ID: D412-775-013

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Step Protective Trim

Start Date: 6/04/14 Start Qty: 1.00

Cust Item ID:

Required Date: 6/04/14 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: MLS Date: 14-06-09 Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
DSI 9503	A
IIN D412-775	Rev A

MLS 14-07-16

100 Document Control 0.00

100

DC

4 DAS
31
9-89

14-07-16

Doc.Control -USB or Paperwork

Memo

0.00

Photocopy bluefile & type labels per PPP D412-775-013 CHG003

105 Pick Kit 0.00

105

Packaging

Memo

0.00

Packaging

DAS
32
9-89

14/7/10

(4)

3-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
--	--	---

Work Order ID 120564

120564

Page 2

Wednesday, June 04, 2014 3:08:39 PM

Item ID: D412-775-013 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Step Protective Trim
 Start Date: 6/04/14 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 6/04/14 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	QC4- 100% Inspect kits for completeness	0.00							
110						4	DAS 31 9-89	14-07-16	
QC	Memo	0.00							
Quality Control									
120		0.00							
120	Packaging					4	DAS 06 9-89		JUL 16 2014
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-775-013								
	Location: <u>028</u>								
	PPP Rev: <u>028</u>								
130	QC21- Final Inspection - Work Order Release	0.00							
130						MLJ	14-07-17		
QC	Memo	0.00							
Quality Control									

mf
14-7-16

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Wednesday, June 04, 2014 3:08:38 PM

Page 1

120564

D412-775-013

Required Date: 6/04/14

Required Qty: 1.00

Comments: IPP Rev:A 08-12-10 new issue DD verified by:ec IPP Rev:B add pick
kit DD 10.02.18 Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3608-1		Manufactured	No			110	Each	5.0000	1	4			
D3608-1									**			DAS 32 9-89	
Lower Doubler													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
	DAS 31 9-89			st175				5					
					106924			1					
					109613			4		109613			
D3608-3		Manufactured	No			110	Each	4.0000	1	4			
D3608-3									**			DAS 32 9-89	
Upper Doubler													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
	DAS 31 9-89			st175				4					
					109523			4		109523			

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge		
☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other		

RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
NO WORK ORDER
120564 MJS
1406-09

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-775 REV. A
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-775 REV. 0

REF. TCCA STC SH08-53
REF. FAA STC SR02692NY
REF. EASA STC EASA.IM.R.S.01529

It has come to Dart's attention that due to variances in airframe, the D3608-1/-3 Lower/Upper Doublers of the D412-775-013 Step Protective Trim Kit at CHG 001 may not always fit as intended. To ensure proper fit, Dart has made changes to both D3608-1/-3 Doublers at CHG 002 and later. The manuals listed above are amended as follows:

IS:

INSTALLATION INSTRUCTIONS IIN-D412-775 REV. A, SECTION 3.2

3.2.5 Locate the D3608-1/-3 Doublers per Figure 3 and 4 and transfer drill #28 ($\varnothing 0.141$ ") holes from the aircraft to the D3608-1/-3 Doublers. Bend tabs on D3608-1/-3 Doublers as shown in Figure 1 of this service instruction and trim rectangular opening as required to fit airframe.

NOTE: To avoid sharp edges or interference between the crew door, hinged panel door and step door assemblies, it is acceptable to trim the D3608-1/-3 Doublers to fit.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-775 REV. 0, SECTION 53.4

53.4.2 Locate the D3608-1/-3 Doublers per Figure 53-2 and 53-3. If the D3608-1/-3 doublers are being replaced, transfer drill #28 ($\varnothing 0.141$ ") holes from the aircraft to the D3608-1/-3 Doublers. Bend tabs on D3608-1/-3 Doublers as shown in Figure 1 of this service instruction and trim rectangular opening as required to fit airframe.

NOTE: To avoid sharp edges or interference between the crew door, hinged panel door and step door assemblies, it is acceptable to trim the D3608-1/-3 Doublers to fit.

WAS:

INSTALLATION INSTRUCTIONS IIN-D412-775 REV. A, SECTION 3.2

3.2.5 Locate the D3608-1/-3 Doublers per Figure 3 and 4 and transfer drill #28 ($\varnothing 0.141$ ") holes from the aircraft to the D3608-1/-3 Doublers.

NOTE: To avoid sharp edges or interference between the crew door, hinged panel door and step door assemblies, it is acceptable to trim the D3608-1/-3 Doublers to fit.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-775 REV. 0, SECTION 53.4

53.4.2 Locate the D3608-1/-3 Doublers per Figure 53-2 and 53-3. If the D3608-1/-3 doublers are being replaced, transfer drill #28 ($\varnothing 0.141$ ") holes from the aircraft to the D3608-1/-3 Doublers.

NOTE: To avoid sharp edges or interference between the crew door, hinged panel door and step door assemblies, it is acceptable to trim the D3608-1/-3 Doublers to fit.

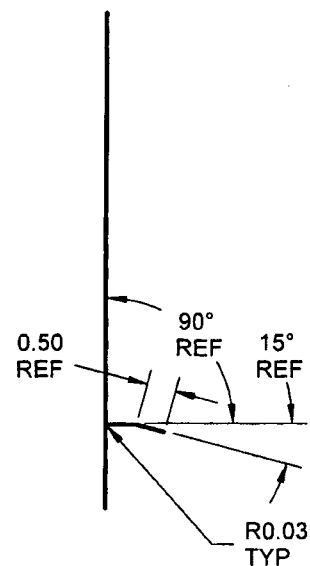
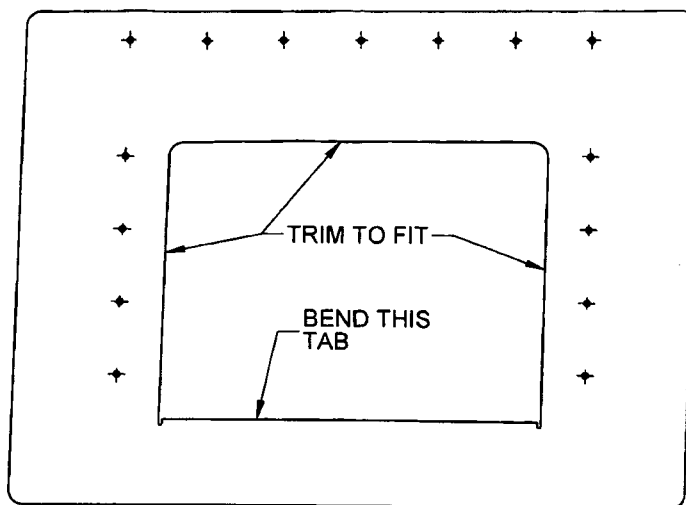
CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

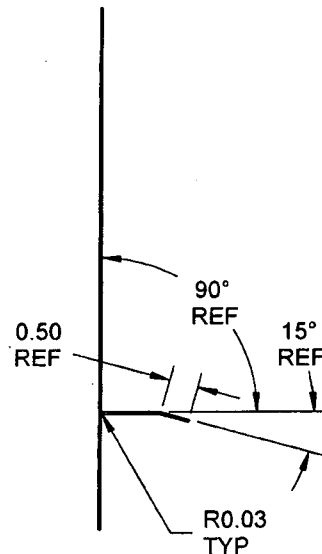
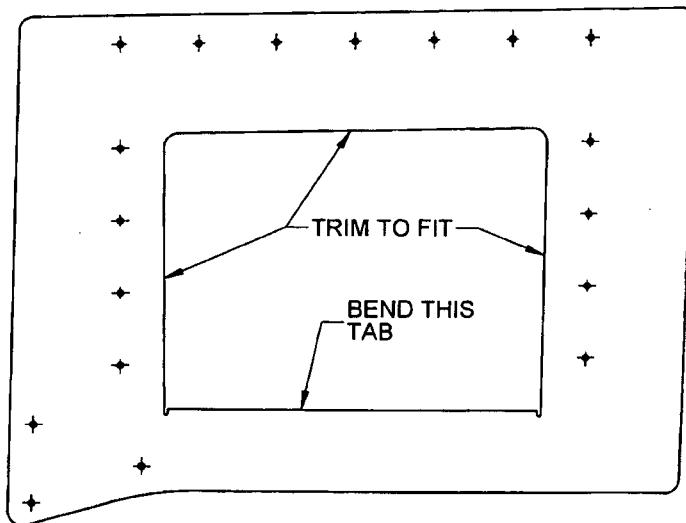
BY: 
D. SHEPHERD (DE # 02)

DATE: 10.02.05
CERT. NO.: SH08-53
ISSUE NO.: 1

A	NEW ISSUE	MB	10.02.05
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9503	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		STEP PROTECTIVE TRIM CHG NTS	
DATE	10.02.05	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



D3608-3 BENT UPPER DOUBLER



D3608-1 BENT LOWER DOUBLER

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 10.02.05
CERT. NO.: SH08-53
ISSUE NO.: 1

FIGURE 1: TRIMMING/BENDING OF D3608-1/-3 DOUBLERS
(PARTS SHOWN PRIOR TO TRANSFER DRILLING)

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9503	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		STEP PROTECTIVE TRIM CHG	NTS
DATE	10.02.05	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			